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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/635,630	08/10/2000	Kazuhiro Kusama	566.38876X00	5841
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MATTINGLY, STANGER, MALUR & BRUNDIDGE, P.C. 1800 DIAGONAL ROAD SUITE 370 ALEXANDRIA, VA 22314			GILLIGAN, CHRISTOPHER L	
			ART UNIT	PAPER NUMBER
			3626	

DATE MAILED: 11/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/635,630

**Applicant(s)**

KUSAMA ET AL.

**Examiner**

Luke Gilligan

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 31 July 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-6 and 8-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 8-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***Response to Amendment***

1. In the amendment filed 7/31/06, the following has occurred: claims 1, 3, and 8-11 have been amended. Now, claims 1-6 and 8-11 are presented for examination.
2. The rejections under 35 U.S.C. 112 have been withdrawn by the Examiner based on changes made by Applicant to the claims.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 6, 8, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Campbell et al., U.S. Patent No. 5,918,209 in view of Okawa, U.S. Patent No. 5,933,810.

(A) As per claim 8, Campbell teaches a service reservation method that accepts requests from users for reservations utilizing services for utilizing services supplied by using resources (Campbell; col. 8, lines 22-25), comprising;

a) accepting service reservation booking requests from users (Campbell; col. 6, lines 42-50 and col. 8, lines 22-25);

b) determining the marginal value (i.e., degree of importance) of the accepted booking request in accordance with the preset specifications (Campbell; col. 7, line 27 to col. 8, line 2);  
and

c) denying the acceptance of the reservation request if the marginal value (i.e., degree of importance) of the request is lower than a net revenue (i.e., predetermined standard), and

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accepting the reservation request if the marginal value (i.e., degree of importance) of the request is not lower than the net revenue (i.e., predetermined standard), (Campbell; Figure 2B, col. 1, lines 15-25, col. 8, lines 20-40), during a period when the demand (81,85) (i.e., load level) is higher than a predetermined level (Campbell; Figures, 7A-7B, col. 1, lines 50-56).

d) allotting an element adapted to select a combination among combinations of the resources which includes data accumulation resources, data transmission resources and data processing resources to allot resources which constitute the combination thus selected to the reservation of the service whose reservation was taken (see column 6, lines 15-34), wherein said data transmission resources are adapted to supply transmission and exchange services to the users (see column 6, lines 35-41), wherein said data processing resources are adapted to supply the users with information processing services via the transmission and exchange service, and wherein said data accumulation resources are adapted to supply the users with information accumulating service via the transmission and exchange service (see column 6, lines 35-41).

e) deciding a logical resource corresponding to a service type that includes a service booking request based on service attribute information that holds a correspondence relationship between the service type and the logical resource (see column 6, lines 42-56, i.e. a logical resource is space on a flight path that corresponds to an airline, service attribute information includes origin and destination information);

f) deciding allocation of a physical resource fulfilling the decided logical resource based on resource management information that holds a correspondence relationship between the logical resource, the physical resource and an attribute of the physical resource, wherein the logical resource specifies an attribute of the physical resource necessary for implementing a service specified by the service type (see column 6, line 57 – column 7, line 4 and lines 16-24,

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i.e. the physical resource is a particular seat on a particular flight).cal resource is a particular seat on a particular flight).

Campbell does not explicitly teach the degree of importance is determined in accordance with at least one of attributes of the users, status information of the services including load level and social factors and attributes of the services. Okawa teaches determining a degree of importance in accordance with at least one of attributes of users, status information of services including load level and social factors and attributes of the services (see column 5, line 60 – column 6, line 5 and Figure 3). It would have been obvious to one of ordinary skill in the art of reservation management to substitute this method of determining a degree of importance for a particular reservation request into the method of Campbell. One of ordinary skill in the art would have been motivated to substitute this technique for the purpose of improving efficiency by automatically making arrangements when duplicate reservations are received (see column 2, lines 1-9 of Okawa).

(B) System claim 1 differs from claim 8, in that claim 8 contains a method recited as a series of function steps whereas claim 1 contains features recited in a “means plus function” format. As the method of step claim 8 has been shown to be disclosed by the teachings of Campbell and Okawa, it is readily apparent that the “means” to accomplish those method steps is obvious in view of the prior art. As such, the limitations recited in claim 1 are rejected for the same reasons given for method claim 8 and incorporated herein.

(C) As per claim 6, Campbell in view of Okawa teach the system supplies services according to the accepted reservation using a digital network that transmits information and reservations between users and the system (Campbell; Figures 2A-2B and col. 6, lines 10-60).

(D) Article of Manufacture claim 10 differs from claim 8, in that claim 8 contains a method recited as a series of function steps whereas claim 10 contains features recited in a "means plus function" format. As the method of step claim 8 has been shown to be disclosed by the teachings of Campbell and Okawa, it is readily apparent that the "means" to accomplish those method steps is obvious in view of the prior art. As such, the limitations recited in claim 10 are rejected for the same reasons given for method claim 8 and incorporated herein.

5. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Campbell et al., U.S. Patent No. 5,918,209 in view of Okawa, U.S. Patent No. 5,933,810 and further in view of Official Notice (as supported by Fields et al., U.S. Patent No. 5,459,656).

(A) As per claim 2, Campbell in view of Okawa teach the system of claim 1 as described above. Campbell further teaches a service reservation system where the predetermined standard in which the marginal value (i.e., predetermined importance degree) is a function of, and increases linearly with, the demand curve (i.e., load level) (Campbell; Figure 11A and col. 11, line 22 to col. 13, line 21). It is unclear in Campbell whether the linear relationship of the demand curve to the marginal value is simple proportional relationship. However, it is common practice in the perishable goods industry (see Fields, column 11, lines 17-25) to create a directly proportional relationship between demand (i.e., load level) and marginal value (i.e., importance degree) for the purposes of estimating materialization and revenue. It would have been obvious to one of ordinary skill in the art at the time of the invention to include a proportional relationship in the linear relationship of demand to marginal value of Campbell with the motivation of "maximizing profitability in the face of uncertain demand" (Campbell; col. 1, lines 24-25).

6. Claims 3-5, 9, 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Campbell in view of Okawa as applied to claim 1 above, and further in view of Lynch et al., U.S. Patent No. 6,119,094.

(A) As per claim 9, Campbell teaches a service reservation taking method for receiving reservations from users for utilizing services supplied by using resources (Campbell; col. 8, lines 22-25), comprising:

- a) accepting service reservation booking requests from users (Campbell; col. 8, lines 22-25 and col. 6, lines 42-50);

- b) increasing the utilization efficiency of each reservation (Campbell; col. 1, lines 15-25)

- c) wherein said resources include a transmission and exchange network adapted to supply transmission and exchange service to the users, and a data processing unit adapted to supply the users with information processing and accumulating services via said transmission and exchange network (see Figure 2A).

Campbell further teaches deciding a logical resource corresponding to a service type that includes a service booking request based on service attribute information that holds a correspondence relationship between the service type and the logical resource (see column 6, lines 42-56, i.e. a logical resource is space on a flight path that corresponds to an airline, service attribute information includes origin and destination information); and deciding allocation of a physical resource fulfilling the decided logical resource based on resource management information that holds a correspondence relationship between the logical resource, the physical resource and an attribute of the physical resource, wherein the logical resource specifies an attribute of the physical resource necessary for implementing a service specified by the service

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type (see column 6, line 57 – column 7, line 4 and lines 16-24, i.e. the physical resource is a particular seat on a particular flight).cal resource is a particular seat on a particular flight).

However, Campbell does not expressly disclose the preparation of a substitute reservation plan including altering the contents of the reservation in the request so that resource utilization efficiency of the request is increased. Nor does Campbell teach the presenting, accepting, or booking of the substitute plan as in items d, e, and f, respectively below.

d) presenting the substitute reservation plan to the user (Lynch; Figure 4, col. 8, lines 55-60);

e) accepting the user's selection of one of the substitute plans (Lynch; col. 8, lines 60-65); and

f) booking the substitute plan (Lynch; col. 8, lines 60-65).

g) wherein a service attribute has a resource identifier and based on the service attribute, the said system determines and reserves candidate identifiers of physical resources and an amount of use that is necessary to provide the service (see column 8, lines 24-35).

Lynch teaches preparing a substitute plan (16) by altering at least one condition-variable among condition-variables of a resource search condition equation which constitutes the content of reservation in the reservation booking requests accepted by the first acceptance element (Lynch; Figure 1 and col. 3, lines 40-65). It would have been obvious to include the substitute plan preparing, presenting, accepting and booking of Lynch in the efficiency seeking method of Campbell with the motivation of identifying "a plurality of alternate low-cost travel arrangements that may be offered or recommended to a customer submitting a travel request" (Lynch; col. 1, line 67 to col. 2, line 2).

Additionally, Campbell does not explicitly teach the degree of importance is determined in accordance with at least one of attributes of the users, status information of the services



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including load level and social factors and attributes of the services. Okawa teaches determining a degree of importance in accordance with at least one of attributes of users, status information of services including load level and social factors and attributes of the services (see column 5, line 60 – column 6, line 5 and Figure 3). It would have been obvious to one of ordinary skill in the art of reservation management to substitute this method of determining a degree of importance for a particular reservation request into the method of Campbell. One of ordinary skill in the art would have been motivated to substitute this technique for the purpose of improving efficiency by automatically making arrangements when duplicate reservations are received (see column 2, lines 1-9 of Okawa).

(B) Claim 3 differs from claim 9 in the recitation of “a reservation condition management element adapted to manage accepted reservation of services as reservation condition.” Campbell teaches a reservation system management element adapted to manage accepted reservations (Campbell; col. 8, lines 20-40 and col. 6, lines 10-55). The remainder of system claim 3 differs from claim 9, in that claim 9 contains a method recited as a series of function steps whereas claim 3 contains features recited in a “means plus function” format. As the method of step claim B has been shown to be disclosed or obvious by the combined teachings of Campbell, Okawa, and Lynch it is readily apparent that the “means” to accomplish those method steps is obvious in view of the prior art. As such, the limitations recited in claim 3 are rejected for the same reasons given for method claim 9 and incorporated herein.

(C) As per claims 4-5, Campbell in view of Okawa and Lynch teach the system of claim 3 as described above. Campbell further teaches the denial and allowance of the accepted reservation and the increase of resource utilization efficiency of the requested reservation

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(Campbell; Figure 2B and col. 1, lines 15-25). However, Campbell fails to teach a substitute plan preparation element that prepares a substitute reservation by altering the contents of the reservation request. Lynch teaches preparing a substitute plan (16) in which the contents of the original request is altered (Lynch; Figure 1 and col. 3, lines 40-65). It would have been obvious to include the substitute plan preparing, presenting, accepting and booking of Lynch in the efficiency seeking method of Campbell with the motivation of identifying "a plurality of alternate low-cost travel arrangements that may be offered or recommended to a customer submitting a travel request" (Lynch; col. 1, line 67 to col. 2, line 2).

(D) Article of Manufacture claim 11 differs from claim 9, in that claim 9 contains a method recited as a series of function steps whereas claim 11 contains features recited in a "means plus function" format. As the method of step claim 9 has been shown to be disclosed or obvious by the combined teachings of Campbell, Okawa, and Lynch, it is readily apparent that the "means" to accomplish those method steps is obvious in view of the prior art. As such, the limitations recited in claim 11 are rejected for the same reasons given for method claim 9 and incorporated herein.

### ***Response to Arguments***

7. In the remarks filed 7/31/06, Applicant argues in substance that (1) the amendments to the claims overcome the 35 U.S.C. 112 rejections; (2) the amendments to the claims based on Figure 7 distinguish over the applied prior art; (3) the Examiner has failed to provide support for the Official Notice as previously traversed; (4) the teachings of Okawa cannot be combined with Campbell; (5) the marginal value in Campbell cannot take into consideration and derive the

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necessary response and resources to properly fulfill a reservation request as in the present invention.

8. In response to Applicant's argument (1), the Examiner has withdrawn the rejections under 35 U.S.C. 112 in view of the amendments to the claims.

9. In response to Applicant's argument (2), the Examiner respectfully submits that Campbell teaches these features as now recited in the claims. In particular, the Examiner directs Applicant's attention to the above rejection of claim 8, for example, and steps labeled e) and f) in particular for citations to Campbell as well as the Examiner's interpretation.

10. In response to Applicant's argument (3), the Examiner respectfully disagrees with this assertion. In the Office Action mailed 8/28/03, the Examiner provided support for the taking of Official Notice by citing the teachings of Fields in response to a traversal of the Official Notice. In addition, in the Office Action mailed 7/13/04, the Examiner again referred to this reference in response to a similar traversal. Therefore, the Examiner does not find this argument to be persuasive.

11. In response to Applicant's argument (4), it is respectfully submitted that the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). In this case, although the Campbell reference does not directly support the motivation that is cited from Okawa, it is respectfully submitted that combined teachings would have suggested, to one of ordinary skill in the art, claimed limitations.

12. In response to Applicant's argument (5), the Examiner respectfully disagrees with this

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interpretation of the teachings of Campbell. In particular, it is noted that Campbell teaches that when a booking request is received, the airline reservations system will "establish a total marginal value for the origin-to-destination flight path departure." (see column 8, lines 22-28). Accordingly, it would appear that marginal values, within Campbell, are a function of a booking requests. Therefore, the Examiner does not find this argument to be persuasive.

### ***Conclusion***

13. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

14. A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Luke Gilligan whose telephone number is (571) 272-6770. The examiner can normally be reached on Monday-Friday 8am-5:30pm.

16. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Thomas can be reached on (571) 272-6776. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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17. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
CLG  
10/13/06



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